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ABSTRACT

A 3-year research and development grant was obtained in 1966 by Emory University from the U.S. Office of Education to increase the quality and quantity of educational research at the University. Funds were made available to individual faculty members in education and related fields to cover released time, research assistance, clerical assistance, and consultants. Proposals from individuals were reviewed by the R. and D. Committee and acted upon by the Coordinator of Educational Research and 29 individual satellite grants were awarded. (Summaries of these projects, including the amount of the grant, purpose, procedure, and follow-up report, are included.) Faculty members were encouraged to upgrade their research capabilities to a point where they could compete for their own research funds from other sources of funding. Five research grant applications have been submitted, with three more in preparation; four grants totalling \$88,782 have been awarded; five publications based on research projects have appeared and six more are planned. A major advantage of the project was the quick accessibility of funds, which facilitated planning and the hiring of assistants; projects could be initiated while major funding was being sought and reinforcing data for applications provided. A continuing program is recommended to provide "underwriting" money and modest research activities, and to insure the continued commitment of the University to educational research. (MBM)

ED040944

Final Report

Contract No. OEC 2-6-062707-2127

Program for Increasing Educational
Research Activity at Emory University

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Emory University

Atlanta, Georgia

August 31, 1969

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U.S. DEPARTMENT OF
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PROGRAM FOR INCREASING EDUCATIONAL RESEARCH ACTIVITY AT EMORY UNIVERSITY

Summary

In 1966 Emory University applied for and received a Research and Development Grant from the U. S. Office of Education. This grant covered a three year period from June 29, 1966, to August 31, 1969. The major purpose of this grant, entitled "Program for Increasing Educational Research Activity at Emory University," was to bring about a rapid increase in both the quantity and quality of educational research activities at Emory University. The plan for accomplishing this objective was to make research funds available to individual faculty members in education and other related fields. The major portion of the grant was allotted for personnel costs. These costs included faculty salaries for faculty members on released time, research assistants, clerical assistance and consultants. Modest amounts were also available for computer time, travel, telephone, duplication services and other miscellaneous expenses.

Faculty members were invited to submit research proposals for possible funding under the terms of the grant. These proposals were reviewed by the Research and Development Committee and acted upon by the Coordinator of Educational Research, the administrative agent for the grant. During the three years of this grant, 29 individual or satellite grants were awarded for faculty research projects. Over half of the faculty members involved in these research efforts held joint or complete appointments with other departments or divisions within the University. This indicates the wide interest generated in problems related to education within the University.

Another purpose of the grant was to enable faculty members to upgrade their own research capabilities to a point where they could compete for their own research funds. A follow-up study indicates that so far five research grant applications have been submitted and three more are in the process of being prepared for submission. There have been four grants awarded as of this date totalling \$88,782. There have been five publications and six more planned, based on the results of the research projects.

This Research and Development Grant, in conjunction with the establishment of a Doctoral Program in Educational Psychology begun in September, 1966, has produced a climate much more favorable toward educational research activities. The efforts of the individual faculty members have paid dividends,

both in terms of publications and subsequent research funds. The major purposes of the grant to establish and to upgrade research activities and produce a supporting research program have been accomplished.

Introduction and Background

"The Cooperative Research Act of 1954 (Public Law 83-531) as amended by Title IV of the Elementary and Secondary Education Act 1965 (Public Law 89-10) authorized support for research, surveys, demonstrations and disseminations and for the development and strengthening of educational research capabilities. To extend opportunities for participation in educational research, the Bureau of Research of the Office of Education allocates a portion of its cooperative research funds for research development grants to be used by colleges which have done little educational research in the past but now have definite plans to develop their research capacity and apply results to improving their on-going program." Acting under the authorization as outlined above, the U. S. Office of Education in the summer of 1966 established a series of programs entitled Consortium on Research and Development (CORD). The purposes of these CORD grants was to enable relatively small institutions to establish programs in educational research by allotting funds for released time for faculty members, for research assistants, for small pilot studies, for clerical help, for consultation and preparation of proposals and other research activities.

It was hoped that these grants would act somewhat like "seed money" in aiding individual faculty members to initiate their own research proposals, which would subsequently be funded and would produce an on-going research program after the termination of the original CORD grant. Seven of these CORD grants were funded in 1966. Six of the seven involved a grouping of three or more smaller institutions in a relatively close geographical area. The seventh was a grant made to a single institution, Emory University, Atlanta, Georgia, and is referred to as a Research and Development Grant. It is the purpose of this final report to describe the activities of the three years' operation of this single institution grant and to evaluate and make recommendations based on the experience of these three years of operation.

For several years, there has been concern among faculty members at Emory University and particularly those in the Division of Teacher Education over the lack of an organized effort directed toward research on problems directly related to education. The Division of Teacher Education (which has recently been renamed, the Division of Educational Studies, and hereafter in this report will be referred to as such) is

one of three divisions within the university structure. It is larger than a department and smaller than a college. Lodged in Emory College and in the Graduate School of Arts and Sciences, it functions budgetarily as a department but in other respects is unique. At present the Division has thirteen faculty members on joint appointment with various arts and science departments, nine full time in education and thirteen part-time faculty members shared with other parts of the university or other institutions. The purpose of the Division of Educational Studies is to provide an interdisciplinary center serving undergraduates, graduate students and faculty members who have a common interest in the study of education.

A period of rapid growth began in approximately 1963 with the advent of a Ford Foundation Grant to implement a fifth year teacher training program leading to the Master of Arts in Teaching Degree. During this time, Emory has added to its staff, both in education and related areas, faculty members who have a demonstrated ability and the commitment to conduct significant educational research. This increased interest, however, was not reflected by a significant increase in formal research activity. In an effort to analyze the reasons behind this lack of organized research, an advisory committee on research was established by the Division in April, 1965. This committee studied the problem and came up with two major recommendations which were adopted by the faculty of the Division of Educational Studies. These recommendations involved: 1) the establishment of a doctoral program in educational psychology to be offered jointly with the Department of Psychology and the Division of Educational Studies. 2) the Division place research in education at the top of its list of priorities and that an effort be made to secure funds to initiate an organized program of research in the Division and allied areas.

The implementation of these two recommendations was undertaken by the administration of the Division of Educational Studies in cooperation with faculty members and the administration of Emory University. The first of these recommendations was realized when Emory authorized a program leading to a doctorate in Educational Psychology in May, 1966, and established the program leading to that degree. In August, 1966, the University applied for and received from the U. S. Office of Education funding for six training fellowships for doctoral candidates in Educational Psychology. The University, during the summer of 1966, hired Dr. Boyd McCandless to head the doctoral program in Educational Psychology. Dr. McCandless holds a joint appointment in the Division of Educational Studies and the Department of Psychology.

The original authorization from the U. S. Office of Education was for six trainee fellowships for doctoral candidates in Educational Psychology to begin in September, 1966, and the first six fellows were admitted in the fall of that year. The six trainee fellowships were continued through 1967-68 and a verbal commitment has been obtained from the U. S. Office of Education for the continuation through 1969-70. The first graduate of this program is scheduled for August, 1969, with four additional students scheduled for graduation in 1970. There are presently thirteen doctoral candidates enrolled in the program and nine additional candidates have been admitted for next fall. There are at present four full-time faculty members, holding joint appointments in the Division of Educational Studies and in Psychology, working with the Educational Psychology Doctoral Program and two additional faculty members, one working one-half time and one one-third time, with this program.

Evidence of university-wide acceptance and support of this program is shown by the awarding of on-the-average six additional fellowships per year to this program from other resources within the University, including the Division of Educational Studies, the Department of Psychology and the University Fellowship Program. Considerable support has also been provided for doctoral students through research assistantships provided through the Research and Development Grant. There has been extensive cooperation between these two programs and each of them has been beneficial to the other. An informal verbal report from the U. S. Office of Education to Dr. McCandless indicates the program has an A-plus rating.

The addition of Dr. McCandless to the faculty as well as the three other full-time faculty members in this program and the doctoral candidates has done much toward strengthening the climate for organized research activities in the Division of Educational Studies. The program has also added considerable strength to the resources available to the Division for designing and conducting educational research.

The second recommendation by the advisory committee on research was implemented by a request in April, 1966, to the U. S. Office of Education for the support of a program of organized educational research activities at Emory. The title of this proposal was, "Program for Increasing Educational Research Activity at Emory University." The original proposal was for a three year program to extend from June 29, 1966, to June 28, 1969. Funds for the support of the first year of operation of this program were granted by the U. S. Office of Education on June 28, 1966.

The objectives of the Program for Increasing Educational Research Activity at Emory University, as stated in the

original proposal, were to "lift educational research at Emory University to a new level of extensiveness and significance and to design a program to bring about a radical expansion in the amount of institutional response to research in education and in studies related to education." For many years, Emory University has had the accomplishment of vigorous research as one of its purposes. In most fields of study, research has been a major university activity, especially in the natural sciences and the basic health sciences. In the field of education, a comparable emphasis on research has been, until very recently, somewhat more limited. The faculty members in such disciplines naturally related to education, as psychology and history, have shown little interest in studies of this phase of their fields. The faculty in education has dedicated most of its efforts to preparation of further education of teachers and other school workers.

In studying this problem, the Division of Educational Studies came to the conclusion that there were several factors which contributed to this situation. These were: 1) faculty members' need for advice and assistance with the planning and securing of support for research projects, 2) faculty members' lack of time to plan and design research projects and arrange for their support, 3) the absence of a stimulating climate for research which results when numerous colleagues in the same field are actively and formally engaged in research, 4) the absence of research assistants or graduate assistants, and 5) the absence of clerical help for research related activities.

The original proposal was designed to overcome, in considerable measure, these limitations and to do so with some permanent effect. In order to accomplish these objectives, funds were requested from the U. S. Office of Education for the support of the following activities: a) released time for a faculty member to serve as Coordinator of Educational Research, b) released time for faculty members to design, initiate and in certain cases begin pilot research activities, c) research assistants, and d) clerical assistance. On June 29, 1966, the U. S. Office of Education awarded to Emory University a one-year grant of \$50,000 for the support of these activities. This grant was renewable for two additional years subject to negotiation. Hopefully, by the end of this three year period, the Division would be in a position to carry out significant quality and quantities of educational research to be able to attract competitively further research funds from both government and private sources. Subsequent funding for the second and third year was granted by the U. S. Office of Education. From June 29, 1967, to June 28, 1968, funds totalling \$41,935 were granted and from June 29, 1968, to June 28, 1969, funds totalling \$35,020 were granted.

Activities

This section will be a detailed description of the activities carried out under this program.

I. Organization and Administration

The first proposed activity dealt with the establishment of the position of Coordinator of Educational Research and the activities related to that office. The position of Coordinator of Educational Research was established in the Division of Educational Studies. Beginning in the fall quarter, September, 1966, Dr. Eugene C. Lee, Associate Professor of the Division of Educational Studies, was assigned one-half time to fill this position and was designated as the responsible agent for the administration of the grant.

The organizational structure for the administration of the grant was set up during the fall of 1966. An Office of Research and Development, headed by the Coordinator of Educational Research, with a half-time secretary and a full-time research assistant, was established within the Division of Educational Studies. A single contract number with appropriate sub-categories was established with the Treasurer of the University. Appropriate publicity regarding the grant and the terms and conditions of funding and a format for submitting proposals was widely distributed and publicized throughout the university community (See Appendix A). As proposals were submitted by individual faculty members, these proposals were reviewed by the Research and Development Committee of the Division of Educational Studies and acted upon by the Coordinator of Educational Research. If a proposal was approved, then a satellite grant or contract was negotiated with the individual faculty member.

The bookkeeping and administration of the individual satellite grants were maintained in the Office of the Coordinator of Educational Research. Individual folders and fiscal accounting were maintained on each of the satellite grants and a composite of the individual grants checked against the university accounting at the end of each accounting period. This allowed the Office of the Coordinator of Educational Research to maintain close tabs on the individual research projects and to maintain a current accounting system on each of the individual grants as well as the total program. It also provided a necessary amount of control since all requests for funds and all the paper work accompanying personnel, supplies, telephone, etc., were funneled through the Office of the Coordinator of Educational Research for authorized signature before being forwarded to the university accounting division. Thus procedures were established for publicizing and inviting requests for proposals for individual faculty

members and procedures were established for granting and administering each individual satellite grant.

The Committee on Research and Development, a standing committee of the Division of Educational Studies, was assigned the responsibility of acting as an advisory body in the coordination of educational research. The Coordinator serves as a member of this committee and works with the committee in designing and assessing the strategy for developing a systematic program of research in education and evaluating research proposals submitted for funding by faculty members under the terms of the grant. The composition of the Research and Development Committee averaged five members per year and during the three year period of the grant, ten different faculty members functioned as members of this committee. Four of these faculty members had joint appointments with other departments within the University; two had joint appointments with a Ford Foundation sponsored Education Improvement Project in Atlanta; one was on joint appointment with the Atlanta Speech School; and one had a joint appointment with Atlanta University. This wide representation of background, interest and experience proved very helpful, both in evaluating and encouraging research activities and in disseminating information about the research program and about problems related to educational research to other segments of the university community.

The position of Coordinator of Educational Research was established as a permanent position within the organizational structure of the Division of Educational Studies and the University provided the office space housing this operation. The office consists of a half-time Coordinator of Educational Research, a half-time secretary, and a full-time research assistant. All personnel in these positions continued through the three years of the operation of the grant. The office maintains up-to-date files on research information and possible resources of funding and has established a research resource center which houses materials related to research, proposal writing and other research related information, including the documents available through the Educational Resources Information Center (ERIC). These holdings are supplemented by the Emory library which maintains a Government Documents Center, which has a rather complete holding of pertinent government publications.

The office also maintains contact with other research agencies, such as the Research and Development Centers, Regional Laboratories, and the Regional Office of Education. Pertinent periodicals and general research information documents pertaining to the designing and writing of research proposals are made available to the faculty. The Coordinator of Educational Research consults periodically with the faculty

members in the Division and within other departments in the University and encourages initiation of research proposals and aids in the writing of these proposals. Attendance and participation in professional meetings and workshops and conferences on the part of the faculty is encouraged and a significant increase in both attendance and participation has been noted. In addition, abstracts of all research projects conducted under the grant are distributed to the faculty so they may keep abreast of their colleagues' research interest. Regularly scheduled faculty seminars are conducted in which faculty members conducting research under the grant present their research findings for discussion. In addition, outside speakers have been brought in to speak at these seminars on topics which were of particular concern to the faculty.

Initial publicity regarding the granting of the award was very favorable. A feature article in the Emory University Campus Report describing the major objectives of the grant was published in September, 1966 (See Appendix B). The Campus Report is widely distributed to all faculty and staff members of the university community and related agencies and institutions. Also, during the three year period, at various times, individual research efforts and publications have been noted in the Campus Report. There has been appropriate publicity in the local news media, including the awarding of the WSB BEAVER Award from WSB Radio Station in Atlanta as a direct result of the obtaining of the grant.

In addition to encouraging individual faculty research, the Coordinator of Educational Research has also attended several workshops and conferences during the three year period in an effort to keep abreast of the educational research on a national basis and to bring to the faculty at Emory some of the more current findings, methods and techniques being employed in educational research. As a part of this effort, the Coordinator of Educational Research and two faculty members attended a Research Training Institute in the summer of 1967 conducted at the Training Research Division of the Oregon State System of Higher Education at Monmouth, Oregon. This Institute was most worthwhile and a rewarding experience for all three participants. The Institute was divided into two sections; the first week dealing with instructional systems analysis; the second week with measurement, design, data analysis and proposal writing. An extensive set of program materials was presented by a highly competent staff. The reaction of those attending the Institute was very favorable and many of the concepts presented at the Institute were applicable to the research and development projects at Emory. A full report on the Institute has been made to the faculty of the Division of Educational Studies at Emory and copies of several sections of the materials presented were distributed to the faculty.

Particular interest has been expressed in the sections on instructional systems analysis and some of the materials have been tried by faculty members in the teacher training program for both graduate and undergraduate students. Also, sections on research and design, data analysis and proposal writing were distributed to the faculty and have been used both in class presentations and in advising graduate students on individual research projects.

During the summer of 1968, the Coordinator of Educational Research attended a one-week session on Project Management Systems at Ohio State University. This was a workshop conducted by Dr. Desmond Cook and was very helpful, particularly in terms of the Program for the Evaluation of Research Techniques (PERT) and project management problems. The techniques and the materials presented in this workshop have proved very valuable in managing the grant and in aiding other faculty members in writing research proposals. As a direct result of this workshop, the Coordinator of Educational Research in conjunction with the Director of Research, Philadelphia Public Schools, has written a series of materials using a systems analysis approach to proposal writing and project management. Two workshops have been conducted so far using these materials; one with the educational research staff of the Philadelphia Public Schools there in September, 1968, and at Auburn University under the auspices of the Educational Media Center in the spring of 1969.

During the spring of 1969, the Coordinator of Educational Research attended an AERA pre-session on instructional product development in Los Angeles conducted by Dr. James Popham and Dr. Robert Baker. Over one thousand pages of printed material were presented during this five-day workshop and a lively and enthusiastic discussion was conducted by the Southwestern Regional Laboratory staff. A report of this workshop was also made to the faculty and many of the materials received during this workshop were utilized by faculty members and by other interested persons in the greater Atlanta area.

At present the Coordinator of Educational Research is working with the Atlanta Public Schools on writing a curriculum for a technical science course as part of the Educational Systems for the Seventies (ES Seventies) Program. A four-day workshop session was conducted in the spring of 1969 using the Instructional Product Development model, and a six-week summer workshop for the development of curriculum materials will begin in June, 1969. The development of these materials is to follow the Instructional Product Development model as presented to the staff by the Coordinator of Educational Research. This workshop will involve approximately 45

professional staff from the Atlanta Public Schools as well as consultants from four other institutions of higher education.

In addition, five other faculty members have attended sessions of workshops on topics directly related to their research under the auspices of this grant; all reported these sessions to be most helpful in the conduct of their individual research projects. They have gained knowledge, insight and consultation which would not have been available otherwise.

The University administration has been most helpful in the efforts of the Coordinator of Educational Research and the office of the Dean of the Graduate School, which reviews all proposals submitted by Emory University, has agreed to forward to this office copies of all research proposals pertaining to educational research. The University has also agreed to maintain the position of Coordinator of Educational Research as a part of the Division of Educational Studies and has provided office space and secretarial help on a continuing basis.

II. Individual Faculty Research Activities

The major emphasis of the Program for Increasing Educational Research Activity at Emory University was to provide individual faculty members with an opportunity to explore their own research interest to a greater degree than had been possible in the past. The hoped for end result was that individual faculty members or small groups of research teams could secure funding for subsequent research and that once the initial efforts were begun, the research programs would continue beyond the termination of the "Seed Money" Grant. A major portion of the budget for the three year period was devoted to personnel, which included released time for faculty members and salaries for research assistants to work with individual faculty members. The grant provided the individual faculty member with the opportunity to apply for released time for himself, for research assistants to work with him on a project, or for clerical assistance. Some aid in data gathering, library or background research, computer assistance, and consultant services were also provided.

The response of the faculty has been most rewarding. There have been a total of 29 different satellite grants awarded to faculty members. The average size of the grants was approximately \$2552 and they ranged as high as \$5800 and as low as \$550. The total number of faculty members involved in the research program, and this included some who worked jointly on projects, was 33. Twelve faculty members were

involved on a released time basis; the total funds involved for released time for faculty members was \$23,780. There were 42 research assistants involved in the individual research projects. Thirty-four of these were graduate students and eight were non-student assistants. The total funds expended for research assistants was \$36,045. This makes a total of almost \$60,000 paid for faculty released time and research assistants. This figure, which amounts to almost 50% of the total grant over the three year period, is indicative of the commitment and the spirit in which the grant was administered. A major portion of the research effort was expended in aiding the individual faculty members to further their own research, and to generally upgrade the quality and quantity of the total educational research effort.

Of the 33 faculty members involved in research projects, four hold joint appointments with education in the Division of Educational Studies and Psychology; one, a joint appointment with the Division of Educational Studies and History; one, a joint appointment with the Division of Educational Studies and Sociology; one, a joint appointment with the Division of Educational Studies and English. Ten were from the Department of Psychology, one from the Candler School of Theology and the rest in the Division of Educational Studies. This wide range of faculty member representation is indicative of the increasing interest on the part of the total university community about problems directly related to education.

There is no question that this program has had a significant effect on increasing the awareness of problems related to education and interest in research on those problems. Not only within the Division of Educational Studies, but probably of even more significance in those areas related to education which prior to this grant had exhibited only a casual interest in educational problems.

Fourteen of the faculty members who were involved in the research projects had not previously conducted funded projects at the university level; 12 involved faculty members who had joined the ranks of university teaching within the last two years. These two figures are significant in that a deliberate effort was made to encourage younger faculty members to continue to pursue their research efforts which they had begun in graduate school and to provide them with some means of continuing that research. In some cases, this meant released time so that they were not over-burdened initially with teaching loads, advising loads, and committee commitments. In other instances, this meant providing clerical help or research assistants so that they could continue to pursue their research interests. In cases involving faculty members with more established research programs, most of the

funds were used to provide time for proposal writing, or for research assistants to aid in pilot studies, or initial data gathering activities, so that the faculty member could continue his research efforts while additional funding was being sought.

One of the purposes of the grant was to aid individual faculty members in seeking other sources for funding for their projects. In an effort to follow up on this, attempts were made to jointly fund or partially fund projects, with faculty members encouraged to seek other sources for additional funding. Seven proposals have been jointly funded by the Research and Development Grant and other agencies. The other agencies include the University Research Committee, the Field Foundation, Ford Foundation, U. S. Office of Education Regional Project Research, and the Office of Economic Opportunity. In one instance, a proposal was submitted for funding, but in the judgment of the Research and Development Committee, another agency was deemed as more appropriate as the funding agent and the faculty member was so advised. The proposal was subsequently submitted to another agency and was funded.

One of the major emphases of the program was to urge faculty members to submit their own proposals and secure their own research funds. A follow-up study was conducted on all of the grants and as of the time of the writing of the final report, five grant applications have been submitted and three more are in the process of being worked up for submission. There have been four resultant grants totalling \$88,782 so far. There have been five publications and six more planned based on the results of the individual faculty research projects.

One faculty member, Dr. Charles Strickland, conducted a research project entitled, "Exploratory Investigation of the Socialization Patterns of Jacksonian America, 1800-1850: The Case of Anna Bronson Alcott." This research has been accepted for publication by Perspectives in American History, published by the Charles Warren Center at Harvard University, and Dr. Strickland was awarded a research fellowship for a year's study at the Charles Warren Center for the academic year 1968-69. Both of these honors were primarily due to Dr. Strickland's research and writing efforts conducted under the sponsorship of this grant. We feel particularly gratified about this individual research project. Sources of funding for research in the history of education are very difficult to obtain, and without the funding of this grant, it is quite likely that Dr. Strickland would have had great difficulty in initiating such a fine piece of research.

Another area of research which has been successfully completed is that involving a computer assisted instruction

project with pre-schoolers conducted by Dr. Donald Ross Green and Dr. Richard L. Henderson. The final results of this project were presented at the International Reading Association Meeting in Boston in 1968. This research project was jointly funded by the Research and Development Grant, the Field Foundation and the Kettering Foundation.

Another unique research effort was conducted by the husband and wife team, David and Margaret Steward. Dr. David Steward is a faculty member of the Candler School of Theology and his wife, Dr. Margaret Steward, is a member of the faculty of the Psychology Department. Their research is entitled, "Developing and Standardization of an Instrument for Assisting Video-Taped Data of Teacher Management in the Elementary Classroom." An extensive amount of data was collected by these two investigators from the Atlanta Public Schools, and some very interesting theoretical and practical results have come out of this project. Of probably greater importance is the fact that these two investigators are now moving to California and have become so enthusiastic about their research that they are applying for a large grant to continue their research efforts in the San Francisco and Berkeley areas of California. They have, at present, three papers in preparation as a result of their first year's research and two more are planned.

One somewhat slightly disconcerting aspect of faculty research which should be noted is that eight faculty members who have received funding under this grant have subsequently left the University for other university positions. This is not an unusually high rate of attrition, but it does mean that the fruits to be reaped in terms of their future research efforts will not be harvested at Emory. It also means that a continuing effort must be made by the University to provide means for the replacing faculty or new faculty to initiate their own research when they join Emory's faculty. The concept of "Seed Money" cannot be a "one-shot" operation because of the turnover of faculty. Efforts must be made to encourage younger faculty members or faculty members just joining Emory to either initiate or continue their own research interest. As indicated earlier, Emory has made a commitment to continue the Office of the Coordinator of Educational Research to aid in this effort.

EVALUATION AND RECOMMENDATIONS

Evaluation

The major purpose of this grant was to bring about a rapid increase in the amount of educational research activity at Emory University. The plan of the program was to channel

a major portion of the grant funds into individual faculty research efforts. These funds were to provide released time for research assistants, clerical assistance and consultant aid. The strategy was to increase research experience and develop research competencies on the part of the individual faculty members. By allowing faculty members time and resources to conduct small pilot studies, gather data, do background research and initiate proposals, it was hoped that an increase in both the quantity and quality of research efforts would result and that funding for further research could be attracted by the individual faculty members. Thus, a self-perpetuating program of funded research activities could be continued when funds were terminated from the Research and Development Grant. This effort has been relatively successful. As was noted in the previous section, almost \$90,000 in additional funding has been awarded so far and several other proposals are pending. There is no way to accurately measure, at this time, the total impact the program has had and will continue to have. There are, however, favorable indications that a major and permanent change has been made, producing a climate much more favorable to conducting educational research activities.

The combined impact of the success of individual faculty research and the advent of the doctoral program in Educational Psychology has produced a much greater awareness on the part of the faculty of the possibilities of conducting educational research activities and the impact these research efforts can and do have on the educational community as a whole.

Since Emory was the only university granted a single institutional grant of this nature, it would seem appropriate to attempt to evaluate the program in terms of its economic efficiency and administration. As was described in the previous section, the Office of the Coordinator of Educational Research was established to administer the grant and individual faculty member research efforts were coordinated through this office. Since there were a relatively large number of faculty research activities, after a discussion with the University Controller's Office, it was decided to handle all of the bookkeeping on individual research activities within the Office of the Coordinator of Educational Research and to deal with the university through only one contract number. This meant a tremendous increase in administrative responsibilities of the Office of the Coordinator of Educational Research since each individual faculty research grant had to be monitored and all bookkeeping involving each of these grants handled individually. It did allow, however, a much closer check on each of the sub-grants and allowed a fairly close check on the expenditure of funds. The University bookkeeping system has a built-in time lag

which would not allow this close monitoring. Also, with this system, all paper work regarding purchases, personnel, materials, equipment or anything related to the individual faculty member's research grant had to come through the Office of the Coordinator of Educational Research for authorized signature. While this again involved a great deal of book-keeping, it was felt that this would work out much better than having the individual faculty members deal directly with the university and that the terms and the spirit of the grant could be much more closely administered using this system. After three years and 29 individual satellite grants, it is felt that this original judgment was justified.

One of the major advantages of the single institutional grant as it was set up and administered at Emory was the relatively fast "turn-around" time which could be accomplished on research proposals from faculty members. Quite often a faculty member generates a certain amount of enthusiasm regarding a research idea or has secured a particular population which might be available for a pilot study and needs a relatively quick answer as to whether research funds might be available. There were several instances in which we were able to provide a judgment regarding a particular research proposal on relatively short notice in order to accommodate the proposal writer. Quite often, decisions regarding personnel and their commitment to employment is based on an answer as to whether research funds might be available. By providing relatively fast feedback information to the faculty member, he was in a much better position to make decisions regarding potential personnel to work on the grant, and to give definite answers regarding employment. This was felt by faculty members to be a particular advantage of this type of grant.

Another use which was made of funds from this grant which worked to an advantage was proposal underwriting. If a faculty member had a research proposal and was in the process of submitting this proposal for funding but needed some commitment of funds in order to begin his research, funds from the Research and Development grant would be used to underwrite initial phases of the research. In at least three instances where this was done, subsequent funding for the research proposal from another funding agency was forthcoming, and minor expenditures from the Research and Development Grant made their research effort possible.

This relatively quick availability of funds sometimes produces unexpected dividends. In one instance, a faculty member was in the process of applying for six training grants under Public Law 85-926. The training grants were in the area of Education of the Deaf and Speech Pathology. A mix-up in the deadlines and appropriations had produced

a situation where the faculty member was unable to reproduce for submission the appropriate number of proposals for these grants. Funds were made available to this faculty member for the purpose of the duplication of these proposals and subsequently six grants were awarded.

In another instance typing services and duplicating services were made available through the Office of the Coordinator of Educational Research for a small contract proposal involving two faculty members in the Division of Educational Studies. Although the research to be undertaken was not being conducted under the Research and Development Grant, secretarial help, and consultative help from the Coordinator of Educational Research were made available and the proposal was submitted and subsequently funded.

Since the majority of the major portion of the funds under the Research and Development Grant were directed towards personnel and a small portion towards materials and equipment, this sometimes presented a problem to faculty members who wanted to engage in research activities that required large expenditure of funds for material or equipment needed in their research activities. In one instance a special request for funds was made to the U. S. Office of Education in a renewal request and these funds were granted. In two other instances, funds from the Research and Development Grant were used in jointly funded projects. Funds from the Research and Development Grant were used to pay for personnel cost in these research proposals and funding from other agencies was used for equipment and material. In neither of these proposals would it have been possible to secure the total funding necessary to conduct the research without this joint funding arrangement.

In summary, an overall evaluation of the project is that it definitely accomplished the purpose for which it was intended. The degree to which the educational research program will become self-perpetuating and the extent to which additional funds can be secured will necessarily await future judgment, but the degree of success which has already been achieved, particularly in light of the increasing difficulty of obtaining research funds, is most gratifying. There is no question that the impact of the Research and Development Grant and the Doctoral Program in Educational Psychology has increased the awareness and the interest in educational research at Emory University. This increased interest is evidenced by the number of faculty members of departments outside of the Division of Educational Studies who have engaged in research activities related to education. Many of these faculty members have subsequently applied for additional funding and are continuing their research activities. In addition, the University administration has

contributed over \$48,000 in matching funds over the three year period of this grant and has established the Office of Coordinator of Educational Research with a half-time secretary on a continuing basis in the Division of Educational Studies and has committed itself to continuing and supporting to whatever extent possible research and scholarly activities in education.

Recommendations

In light of the foregoing report and the experiences over the past three years, it was felt that some recommendations regarding the continuing or expanding of such grants would be appropriate.

1. As was noted in the previous section, one of the major advantages of this type of grant is the relatively quick accessibility of funds. This has tremendous advantage in terms of the individual researcher, both psychologically and practically. The researcher can get immediate feedback on his ideas and on the availability of funds. This enables him to establish his research program and to proceed with the details of how this program might be carried out, particularly in terms of hiring research personnel. It is very difficult to plan and execute a research project and particularly to hire competent research assistants if the researcher is left dangling over a long period of time as to whether his project will be funded. One of the advantages of the Regional Project Research Program is that quicker turn-around time can be obtained.

2. Another advantage is the ability to use funds for underwriting or initiating research projects while other funds are being sought. This enables the researcher to begin his research program and to make the necessary commitments and proceed without debilitating delay. Other advantages include the relative small expenditure of funds for clerical help and reproduction of proposals and other minor details necessary for submitting a research proposal. Many of our satellite grants were quite small enabling the researcher to conduct modest research activities prior to proposal preparation.

3. Another factor which was noted earlier in this report is the problem of faculty turnover. Some of the faculty members who have conducted research activities under the Research and Development Grant have subsequently moved to other institutions. This is a matter which cannot be helped and one can rationalize that this is contributing to the general educational research effort. These faculty members, however, have been replaced and new faculty members

are being added each year. This means that some continuing program should be established to aid these incoming faculty members. Of particular concern are those faculty members who are new to the college teaching ranks. Quite often the enthusiasm generated for research in graduate school is allowed to become inundated by committee assignments, teaching loads and other factors involved in a new job. The new faculty member without an established reputation or any degree of expertise in securing research funds finds it quite difficult to produce research proposals which are competitive for the relatively restricted research funds. It would seem advantageous to provide whatever aid and assistance which can be found to aid these new faculty members before they become discouraged.

4. In light of the above considerations, it is suggested that a program be worked out whereby the expenditure of relatively small funds could produce large dividends. In the case of an institution like Emory, for instance, funding in the range of \$10,000 to \$15,000 a year, under somewhat the same conditions as the original Research and Development Grant, could quite possibly produce very desirable results. Negotiations might be worked out such that a university would release a faculty member half time to act as a coordinator of the program and federal funds could be used to provide for clerical help, for very modest research activities, for "underwriting" money, for proposal preparation and other activities such as those as are outlined in the paragraphs above. Such a program could be established on a matching basis with the university providing the time of the faculty member to head this activity and the Office of Education providing modest funds on a continuing basis, say, over a five year period. Such a program could be handled administratively through the Regional Offices and might very well produce large returns for a relatively small investment. It would also insure the university's continuing commitment to educational research and should result in an increase in both quality and quantity of research proposals.

SUMMARIES OF INDIVIDUAL
FACULTY RESEARCH PROJECTS

SOCIOECONOMIC INFLUENCES ON LEARNING AND MOTIVATION IN CHILDREN

Investigator: Jean L. Bresnahan
Division of Educational Studies
and Department of Psychology
Ph.D., Emory University, 1966

Amount of Grant: \$5,717

Purpose:

The purpose of this project was to develop facilities and procedures for the study of learning and sensory processes in school-age and pre-school children.

Procedure:

To study response consistency as a function of socioeconomic level (SEL) and reading ability, children will be presented four stimuli, from a possible set of twelve, on each trial. The four pictures will be presented in counter-balanced order over the individual trials. During the first phase of the study, the pictures will be presented for 20 trials and the subject asked to reproduce the configuration of four pictures. Since the presentation time will be too brief for the subject to see all four stimuli, two measures will be available: the number of correct identifications in each of the possible locations and the order in which S presses the response keys with respect to the stimulus locations. The response-direction preference and consistency for each child can be calculated. In the next 40 trials, the subjects will be instructed to respond left-to-right, right-to-left, up-to-down, and down-to-up. This will provide another measure of response-direction preference and consistency using this forced trial procedure. In the last phase, 20 trials instructed left-to-right will be administered to measure acquisition of a response-direction set as a function of SEL, reading ability, and the child's original response-direction preference. No reinforcement is employed in this first study and no verbal material is employed. These variables will be manipulated in the immediately following studies. A non-verbal response is used, since this technique could possibly be used to predict later school and learning difficulties.

Results:

Analysis of the data shows that fourth graders tend to perform with more directional response than do second

graders. Socioeconomic class appears to be significant only in interaction which indicates that second grade, high SEL subjects respond with directional response more than low SEL.

Follow-Up Report:

A grant of \$60,825 was obtained from the Office of Economic Opportunity to continue this research effort.

LEARNING STRATEGIES IN DIFFERENT SOCIO-ECONOMIC LEVELS

Investigator: Jean L. Bresnahan
Division of Educational Studies
and Department of Psychology
Ph.D., Emory University, 1966

Amount of Grant: \$2,700

Purpose:

The long term goal of this investigation is to determine the different strategies which high and low socio-economic level children utilize in learning. The basic assumption is that these different strategies result from different training in their early home environment. It is hoped that the determination of these strategies will later permit the manipulation of appropriate variables. The manipulation of these variables in experimental settings will be conducted in an attempt to reproduce or alter the differences between the children from the different socio-economic levels.

Procedure:

Five and six-year-old children, 36 boys and 36 girls, were sampled from the Cobb County, Georgia, Headstart Program. The high socio-economic level children were 27 boys and girls of the same age group from the Jewish Community Center of Atlanta, Georgia.

Each child was given five tasks, the first four consisting of twelve trials each and the last, 72 trials, for a total of 120 trials. The subjects performed on a Lehigh Valley Electronics Company Human Intelligence Panel. Mounted on the panel were a dual multi-stimulus response-key apparatus, a one-cent reinforcement delivery system, and a three symbol multi-stimulus projector panel. The three symbol multi-stimulus projector panel was used for the first four tasks. Two Latin alphabet letters were presented simultaneously and the subject was allowed to press the key under one of the letters. In the fifth task, the concept formation problem, the children were allowed to press the keys in front of the dual multi-stimulus projectors which presented red and green triangles or circles. The experimental procedure was controlled by automated electronic equipment and all responses and stimuli were recorded on a six-channel event recorder.

Results:

The high socio-economic level subjects performed considerably better than the low socio-economic level subjects on the concept formation task. This finding is consistent with all previous results. Of particular interest is the new finding that under these conditions, in which at least one of the previous tasks had been random and not solvable, the high socio-economic level girls performed considerably worse than the high socio-economic boys, this sex difference being unobservable within the low socio-economic level.

Follow-Up Report:

See preceding research report.

LEADERSHIP COMPLIANCE AND GROUP BEHAVIOR

Investigator: Winnie J. Bridgeman
Division of Educational Studies
Ph.D., Washington University, 1965

Amount of Grant: \$2,450

Purpose:

The purpose of this project was rewrite and rework data gathered during work on the doctoral dissertation. Plans for preparation of materials for publication and for submission of a subsequent research proposal were also included.

Results:

The study was an initial test and exploration of some of the dependent relationship of social perceptual-evaluative processes and social motivation with stimulus variables as perceiver expectancy. A theoretical paradigm was developed in which certain hypothetical relationships among these variables were specified. Two rewrites of the study were accomplished and a proposal was submitted to the U. S. Office of Education. The materials are still being worked on for publication in conjunction with Richard deCharms.

Follow-Up Report:

Investigator moved to Miami University (Ohio). Research grant obtained \$2,000 from Miami University (Ohio) Research Budget. Applied for U. S. Office of Education grant for \$22,000.

A SYNTACTIC ANALYSIS OF THE SPEECH OF
NINETY-SIX NATIVE-BORN FIFTH-GRADERS
IN THE ATLANTA PUBLIC SCHOOLS

Investigator: Howard G. Dunlap
English Department
Ph.D. in progress, Emory
(Expected 1969)

Amount of Grant: \$3,000

Purpose:

To study the systems and differences of local dialects so that pedagogical materials can be developed which will enable teachers to do much more than attack such solecisms as "ain't," "he don't," and "dis" and "dat."

Procedure:

Ninety-six fifth graders were randomly selected from six elementary schools in the Atlanta area. Two schools, one totally Negro and one predominately white represented upper-middle class neighborhoods; two schools, also racially distinct, represented stable lower-middle class neighborhoods; and two, again, racially distinct, represented the most disadvantaged neighborhoods possible.

Students were selected from a list of fifth graders who had been born in Atlanta. Those with known speech defects were eliminated. The final sample consisted of 45 boys and 51 girls with I.Q.'s ranging from 71 to 127. The students were given a questionnaire which revealed phonological, grammatical, and lexical information and another set of questions designed to involve the child in free conversation.

After the ninety-six tapes have been transcribed, an elaborate analytical procedure will be applied to each sentence and all occurrences of every item isolated in the analytical procedure will be counted.

Projected Outcomes:

It is hoped that it will be possible to show in great detail the speech patterns which represent the "standard" dialect among upper-middle class Atlanta-born fifth graders. If there are any apparently significant differences related to sex or race, these will be pointed out. Similar analysis will be made for lower-middle class speech and for

lower-class speech. It should be possible to show over a wide range of syntactic structures the ways and the degrees in which the speech patterns of the children in these three social classes differ. If this can be done, it should be possible to formulate productive teaching materials and to use this objective knowledge regarding structural differences as a conscious tool to aid both teachers and students. These results can be used in construction of teaching materials, in in-service training for teachers, and in the implementation of a more effective and more general program in language training for disadvantaged children.

Results:

At present, only the initial phase has been completed in what will ultimately be an exhaustive analysis of the corpus described above. Two thousand words from each of fifty-six interviews (14 upper-middle black, 14 upper-middle white, 14 lower black, 14 lower white -- seven boys and seven girls in each group) were marked off into T-units (as defined by Kellogg Hunt) and the length of T-units counted. Results show that social class is significant at the .005 level with regard to length of T-unit (8.46 words the mean T-unit length of the upper-middle groups; 7.42 words the mean length of the lower groups), while race and sex are not significant factors in T-unit length.

Follow-Up Report:

This material is being used as the basis for a Ph.D. dissertation.

AN EXPERIMENT ON THE PRIMACY-RECENCY ISSUE
USING COMPUTER ASSISTED INSTRUCTION

Investigators: Donald R. Green
Division of Educational Studies
and Department of Psychology
Ph.D., University of California
at Berkeley, 1958

Richard L. Henderson
Division of Educational Studies
Ph.D., University of Chicago, 1949

Amount of Grant: \$5,249

Purpose:

To determine whether to program the computer to respond to the first or to the last key pushed by the child between end-of-block (EOB) signals.

Procedure:

Subjects were 15 four-year-old Negro boys and girls and one Caucasian boy attending Trinity Day Care Center, Decatur, Georgia. Four girls and four boys were assigned to each of the two treatment groups: Group A followed the program presenting the first key struck; Group B followed the program presenting the last key struck. The computer (IBM 1050 in the form of an elaborated "Selectric" typewriter which feeds into an IBM 1440 at Florida State University via Bell data-phone) was programmed so that when struck each key produced a "common" word visually and auditorially.

Results:

The major question being investigated turned out not to be a crucial factor. However, it was found that these "culturally deprived" children can learn to identify the proper key, given the word spoken and written. It was also found that boys do better with this system than girls. The sex differences were interpreted to mean that the machine system is indeed particularly appropriate for disadvantaged children, since in academic activities in the early years, boys are disadvantaged relative to girls, and this is especially the case where verbal facility is important, as in reading. In this system, the boys appear to have no such handicap.

Follow-Up Report:

Research reported at International Reading Association Meeting in Boston, April, 1968.

FACTORS INHIBITING THE EXPRESSION OF CONCEPTS IN
WRITING AND DRAWING: MEMORY AND THE CAUSAL MEDIUM

Investigators: Donald R. Green
Division of Educational Studies
and Department of Psychology
Ph.D., University of California
at Berkeley, 1958

Nancy E. Wilder
Graduate Student, Division of
Educational Studies

Eugene C. Lee
Division of Educational Studies
Ed.D., Harvard University, 1961

Amount of Grant: \$1,500

Purpose:

To develop a series of experiments dealing with the expression of scientific concepts; specifically, the factors inhibiting the adequate expression of certain scientific concepts.

Procedure:

Subjects will be four fourth grade classes using light sensitive paper materials used in previous experiments.

Two identically treated papers change color under light, the paper receiving more light exhibiting the most change. Ss are then asked to either write or draw a picture of what happened and explain it, or why it happened. This is Expression I.

Ss are then shown another example of the outcome of the same effect, but not the process, and are asked to write or draw the "what" and "why" of the phenomenon. This is Expression II.

Prior experiments showed that shifting medium of expression interferes with the expression of causal relationships but not with descriptions. The shifting effect appears to explain, in part at least, a number of other phenomena often noted in the literature; such as, the difficulties people have in verbalizing their solutions to mathematical problems.

The proposed studies are intended to evaluate two assumptions based on the prior experiments:

- a. that any sort of causal concept may be included,
- b. that the phenomenon applies to people in general.

Results:

In general, the results of this study are consistent with previous studies. It was found to be easier to repeat cause and effect concepts in writing or drawing than to change from writing to drawing or drawing to writing. Also, there are strong differences among different materials used in the experiments.

Follow-Up Report:

Dr. Green is continuing to analyze the data and plans a paper and a presentation based on the results.

PARENTAL AND PERSONAL INFLUENCES ON THE
DEVELOPMENT OF VOCATIONAL INTERESTS IN ADOLESCENCE

Investigator: John W. Hollender
Department of Psychology
Ph.D., University of Iowa, 1966

Amount of Grant: \$1,835

Purpose:

The purpose of the present study is to examine some of the influences on similarity of vocational interests between adolescents and their same-sex parent. A pilot sample of 33 college males and their parents has indicated that the following variables are important: father masculinity, son's perception of father's work satisfaction, son's self-esteem, mother's satisfaction with father's work, and son's perception of mother's satisfaction with father's work. This present study will utilize high school students and will investigate additional variables of mother's vocational interest, mother femininity, mother and father defensive self-esteem, and semantic differential measures of spouse satisfaction and adolescent identification.

Procedures:

A sample of 340 juniors and seniors was obtained from a local Catholic High School. The instruments to be used will be the Strong Vocational Interest Blank, Marlowe-Crowne Special Desirability Scale, semantic differential ratings of self, spouse, father, mother, etc., and a Biographical Data Sheet.

Results:

All students have been tested. About 40 forms were improperly completed and have been returned for correction. Machine scoring of the Strong Vocational Interest Blank has been completed and about one-third of the other data has been processed.

Follow-Up Report:

The research is continuing. The second follow-up letter to parents is being mailed. Some computer funding has been obtained from the Emory University Computer Center. Final analysis is anticipated in the fall of 1969. Publications and further research are planned.

DIAGNOSTIC CLASSIFICATION AND CURRICULUM INNOVATION
AND AN INVESTIGATION OF THE APPLICABILITY OF CHILD-
REARING REINFORCEMENT CONTINGENCIES TO
LEARNING DISABILITIES

Investigators: R. Wayne Jones
Department of Psychology
Ph.D., University of Miami, 1964

Alfred B. Heilbrun, Jr.
Department of Psychology
Ph.D., State University of Iowa, 1954

Amount of Grant: \$2,820

Purpose:

The present proposal represents an attempt to: 1) diagnostically describe a representative sample of intellectually capable, but academically retarded children (labeled as specific learning disabilities); 2) evaluate across time two separate and partially unique educational curriculums designed to remedy this impairment; 3) measure progress by means of retesting of original classification indices at end of school year; 4) develop techniques for and conduct experimental evaluation of the influence of the role of reinforcement in learning disabilities; 5) develop techniques for evaluation of the maternal child-rearing experience of the child and to relate these experiences to the occurrence of specific learning disabilities, the role of reinforcement in learning disabilities, and the response of the child to remedial educational programs.

Procedures:

The children participating in this pilot study will be drawn from two school programs; one, a private school emphasizing individual instruction in reading and language skills, and the other, a public school in the Special Learning Disabilities Program. Procedures to be followed include: 1) extensive diagnostic testing; 2) development of a time sampling technique to measure curriculum activities; time units, and specific procedural methodology; 3) classification of etiology; 4) re-diagnosis, at the end of the school year, to measure the change in academic skills of a controlled group of children who have been diagnosed but have not been accepted into either of the special programs; 5) comparison of change in motoric skills for the programs within these two schools in comparison with the control children.

In studying objective number 5, control groups will be of two types. Siblings of children with learning disabilities who do not demonstrate this anomaly will be used. This will introduce some disparities in age between paired subjects, but the common-mother feature will allow for investigation of whether filial perceptions of the mother vary as a function of the presence or absence of learning disabilities. In addition, non-familial controls will be employed to allow for better matching by age and sex between children with learning disabilities and those who are making normal educational progress.

Results:

A factor analytic rotation has been accomplished on the scores. The data was broken down into subtest scores for the Wechsler Intelligence Scale for children and both forms of the Illinois Test of Psycholinguistic Ability. These scores were submitted to a principle components analysis and a varimax rotation. Interpretation is not yet complete.

Follow-Up Report:

A proposal for funding to the U. S. Office of Education was not approved. A publication is presently being written and a second study is now underway.

FREE ASSOCIATION NORMS IN THE PRESCHOOLER

Investigator: Herbert Kaye
Department of Psychology
Ph.D., Brown University, 1964

Amount of Grant: \$2,500

Purpose:

To perform experimental research of parameters of verbal mediation based on findings of previous research by Kempler and Kaye, "The Role of Verbal and Motor Cues in Discrimination Learning and Transfer in Children of Varying Cultural Backgrounds."

Procedure:

Ss will be preschool children between three and five years of age who are receiving a varied training program in linguistic usage in eight grammar schools, three of which are Education Improvement Project preschools. The control group will consist of about 120 children of high socioeconomic background obtained in part from the University Day School.

Two sets of information will be collected from the EIP schools; the Peabody Picture Vocabulary Tests, and a series of responses in a free association design to approximately 100 words falling into nominal form classes (verbs, conjunctions, etc.) presented in a predetermined order.

The information on the associations will be tabulated on computer cards and will be subjected to sorting and analyzing through the use of high speed computers.

This data will provide a core of information to be used in several ways: 1) to describe the linguistic associations normally found in a preschool group from the socioeconomic levels dealt with; 2) to provide a relationship between IQ, ITPA scores and scores and types of associations made in the free association design; and 3) to provide the associative values necessary to carry out some mediation type paradigms.

Results:

While all analyses are not complete, some trends have emerged as follows:

- 1) Caucasians had verbal I.Q.'s higher than Negro children.
- 2) Males had less one-word and more two-word responses than females.
- 3) Males had fewer paradigmatic responses and more syntagmatic responses than females.

Follow-Up Report:

A grant for \$1,000 from Emory University Research Funds has been applied for. A grant of \$9,000 from the U. S. Office of Education has been obtained.

ROLE OF VERBAL AND MOTOR CUES IN DISCRIMINATION
LEARNING AND TRANSFER IN CHILDREN OF VARYING
CULTURAL BACKGROUND

Investigators: Bernhard Kempler
Department of Psychology
Ph.D., Clark University, 1964

Herbert Kaye
Department of Psychology
Ph.D., Brown University, 1964

Amount of Grant: \$3,154.50

Purpose:

The major problem to be explored in this research project was the role of verbal and non-verbal mediation in discrimination learning and transfer in children of varying cultural backgrounds.

Procedure:

Subjects for the study were 75 children $3\frac{1}{2}$ to $5\frac{1}{2}$ years of age, approximately half each from a culturally advantaged and a culturally disadvantaged background. The former were obtained from the University Day School in Decatur, the latter from EIP preschools at Grant Park, E. A. Ware and M. Agnes Jones. IQ scores were obtained with the Peabody Picture Vocabulary Test.

In a pre-training task the children learned to associate either verbal or motor responses with a set of stimuli. They were then given a discrimination learning task designed to determine the extent to which discrimination had been aided or impaired by the pre-training. A third task investigated transfer of the learned discrimination to stimuli made "equivalent" through pre-training.

Results:

Data is incomplete. Inspection of the available data suggests the following characteristics: (1) considerable variability of performance in both the pre-training and the discrimination tests; (2) a suggestion of faster pre-training in the disadvantaged group; (3) the discrimination data are in the expected direction, that is, discrimination appears to be better with different verbal labels than with the same verbal level.

Follow-Up Report:

A publication based on this research is being readied for submission.

TEACHERS' EXERCISE OF AUTHORITY AND POWER

Investigator: Edward T. Ladd
Division of Educational Studies
Ph.D., Yale, 1950

Amount of Grant: \$2,950

Purpose:

The purposes of this study are: 1) to develop a procedure for identifying and placing into a conceptual scheme the key features of the conditions under which, and ways in which, public school teachers in fact exercise their authority and power to control students' behavior, together with other related school phenomena; 2) to develop a number of generalizations about ways in which that authority and power are used or may be used; 3) to develop some hypotheses about the effectiveness which various patterns of authority-exercise have for order-keeping, about their constitutional or legal propriety, and about their effectiveness as education for free citizenship; and 4) to develop a theoretical framework which will permit comprehensive and sophisticated study and discussion of all aspects of teachers' exercise of authority and power over students.

Procedure:

The study will be conducted by analyses of classroom observations and TV-taped conferences with colleagues and persons in the schools, and by researching descriptive analytical literature on the subject.

Results:

Work is in progress on developing the theoretical framework described above. A two day consultation with Louis M. Smith, Washington University, St. Louis, proved most beneficial in this regard. A research plan for 1969-70, when the investigator will be on leave, has been developed.

Follow-Up Report:

Two research proposals have been submitted, one to the U. S. Office of Education Bureau of Research and one to the U. S. Public Health Service for \$50,000.

CAREER DEVELOPMENT OF SCIENCE TEACHERS

Investigator: Eugene C. Lee
Division of Educational Studies
Ed.D., Harvard University, 1961

Amount of Grant: \$4,050

Purpose:

The purpose of this research project was to verify, or modify, and extend previous work in the area of the career development patterns of science teachers.

Procedures:

Data for conducting this research was made available from Project TALENT.

Using seven career groups (Mathematician, Physical Scientist, Biologist, Math Teacher, Science Teacher, Secondary Teacher, Engineer) and twenty-two factors derived from the original test battery, a twenty-two variable seven-group discriminant analysis was performed for the five-year follow-up data on 5,114 males from the 1960 high school graduating class.

Results:

Group deviations from the grand means on each of the 22 factors for the seven career groups indicated that on the sociability factor the highest group was secondary school teachers followed by science teachers. The science groups were either near or below the mean. On the science interest factor, the science teachers were on the positive side of the mean while other secondary teachers were highly negative.

Six discriminant functions were derived from the seven groups. The three significant (.001) discriminant functions were plotted as follows: I vs. II, I vs. III and II vs. III.

It was found that discriminant function I separated science teachers from the mathematicians and physical scientists (the positive end of this function tends toward sociability, the negative end tends toward mathematical ability). Discriminant function II provided separation among the biologists, science teachers, engineers, and math teachers who were closely grouped in discriminant

function I. Biologists scored high and mathematicians low on discriminant function II (orientation toward verbal knowledge). Plotting discriminant function I vs. II provided additional separation between physical scientists and mathematicians with mathematicians showing higher weighting on discriminant function II (verbal knowledge high positive factor). Plotting discriminant function II vs. III showed math teachers at one end of discriminant function II and biologists at the other end, mathematicians high on discriminant function III, and engineers close to the negative end with the other groups in between.

Follow-Up Report:

Research continuing. Publication planned 1970.

ASSESSMENT OF NON-INTELLECTIVE VARIABLES IN
PSYCHOLOGICALLY DISADVANTAGED FOUR-YEAR-OLDS

Investigator: Boyd R. McCandless
Division of Educational Studies
and Department of Psychology
Ph.D., State University of Iowa, 1941

Amount of Grant: \$980.00

Purpose:

To develop intra-individual measures of children.

Procedure:

The subjects were 63 four-year-olds attending three Atlanta Public Schools in a pre-kindergarten "compensatory education" program.

Data was gathered for the following variables:

1. Demographic data, specifically including quantifications of the following psycho-social variables:
 - a. Degree of parental interest in child's educational progress
 - b. Function and activity level of the father in the home
 - c. Home educational efforts
2. Pre- and post-tests, quite circumscribed, of cognitive development and concept formation:
 - a. Two attention span scales of the Illinois Test of Psycholinguistic Ability
 - b. Color and object labeling tests
 - c. The Peabody Picture Vocabulary Test
3. "Work involvement" indices based on observation
4. The McCandless-Marshall Picture Sociometric Technique
5. Two teacher sociometric scores
6. Measures of the child's passivity-aggression, and of the nature of his aggression.
7. The child's somato-phenotype, using Parnell's techniques for evaluating endomorphy-mesomorphy-ectomorphy.
8. The child's self-social concept, using the Henderson, Long, and Ziller Self-Social Constructs Test.
9. The Goldstein Behavior Rating Scales, rated by the teachers.

Results:

The present grant has contributed importantly to gathering intra-child data on nine variables believed to be potentially useful in predicting the later success in school of sixty three- and four-year-old children attending a "compensatory education" pre-kindergarten program. Data analysis has not been completed at this time.

Follow-Up Report:

This research is part of a larger study being conducted. At least one Ph.D. dissertation by Herbert Richards will be based on this research.

SCHOOL (AND LIFE) SUCCESS OF SLUM CHILDREN

Investigator: Boyd R. McCandless
Division of Educational Studies
and Department of Psychology
Ph.D., State University of Iowa, 1941

Amount of Grant: \$5,850

Purpose:

To follow at least three Title I, Education Improvement Schools, classes of three groups of four-year-olds each through third grade in an effort to determine the contribution of success-failure variance due to selected intra-individual variables, teacher management variables, and individual school variables.

Procedure:

A. Intra-individual and demographic variables (now in second year of data collection):

1. Demographic data: family characteristics, school supportive family characteristics based on maternal interviews, socio-economic status, paternal role in family.
2. Intensity of Task Involvement data.
3. Vocabulary.
4. Speech use.
5. Paired associates, nonsense syllables and forms.
6. Self-Social Concept.
7. McCandless-Marshall Picture Sociometric Test.
8. Teacher paired-comparison, and individual nomination sociometrics.
9. Externalized aggression as opposed to nurturance seeking and fantasy hostility as judged by stimulus object verbal associations.
10. Goldstein Head Start Behavior Rating Scales.
11. Parnell System (British) of somatotyping.
12. It Test of appropriateness of sex-typing.

B. Classroom management data for 10 classroom teachers, using the Kounin techniques as a base for study; and videotape and the Intensity of Task Involvement Scale. We are now partially trained in the scoring, and have taken our first "research oriented" tape (with collaboration of Dr. David Day and Dr. Mary Endres).

Results:

Data is still being collected and analyzed. Preliminary findings indicate that valuable information is being obtained which should provide some insight into the success-failure variance with slum school children. Of particular interest at this point are the non-cognitive predictors of school success which seem to hold promise.

Follow-Up Report:

Research is continuing under funds from the Education Improvement Project and the Ford Foundation sponsored Project in Atlanta.

EXPLORATORY INVESTIGATION OF URBANIZATION PATTERNS
OF RURAL MIGRANTS TO MADRID, IN HOUSEHOLD,
INDUSTRIAL SHOP, AND CLASSROOM

Investigator: G. Alexander Moore
Division of Educational Studies and
Department of Sociology and Anthropology
Ph.D., Columbia University, 1966

Amount of Grant: \$1,974.90

Purpose:

This study would create a research proposal in the requisite variant forms in order to send it to various funding agencies in the hope that one would fund the research. The long-range outcome would be the publication of a monograph on the problem based on fieldwork.

Procedure:

The first step would be a trip to New York City to consult informally with anthropologists, reading, drafting of a proposal. The ethnographic research to be proposed would be of one year's duration in Madrid. The fieldwork would be of the participant-observation type. The study would probably focus on a small number of families, some recently come to the city from the countryside, and one of Madrid origin. Possibly a few single migrants will be considered as well.

Observations will focus initially on the household. Extended interviews and life history tapes will be an additional tool. Unlike previous such students, I intend to follow these people into the public world of work: into the industrial shop and classroom by making extended observations in both places.

Results:

After consulting with various colleagues and authorities, a research proposal was drawn up and submitted.

Follow-Up Report:

A research proposal, "An Ethnographic Study of the Process of Urbanization in Madrid," was submitted to the National Science Foundation for \$80,000. No word has been received on this proposal.

AN INVESTIGATION INTO THE EXTENSION OF THE NATIONAL
SCHOOL SYSTEM TO THE GUATEMALAN PEASANTRY

Investigator: G. Alexander Moore
Division of Educational Studies and
Department of Sociology and Anthropology
Ph.D., Columbia University, 1966

Amount of Grant: \$2,566.66

Purpose:

This proposal seeks support in writing the first draft of a monograph on the extension of the formal national educational system to the Guatemalan peasantry. The focus will be on one peasant community, where ad hoc classes, spontaneously organized but claimed by the national literacy campaigns, compete with those of the official school, and where many peasants receive no schooling at all. The monograph seeks to analyze this field data, which will have all been collected by late September, 1968. The central problem will be that of the identification and evaluation of appropriate instructional units (classroom or tutorial) for the modernization of the world's peasantries.

Procedure:

1. The study will focus on a peasant village where the author has already spent 18 months. Much of the background material and data has already been gathered and is in his fieldnotes or in his doctoral dissertation: SOCIAL AND RITUAL CHANGE IN A GUATEMALAN TOWN, Columbia University, 1966. He has already written and read a preliminary paper on the problem set forth here before the Carnegie Seminar of Indiana University: "Formal Education in a Guatemalan Peasant Community; an Example of Acculturation in Reverse." Thus much of the groundwork has already been laid.

2. From mid-July to mid-September, 1968, the author will be in Guatemala gathering additional material. He will conduct more extensive interviews with teachers and with educational bureaucrats, collecting taped life histories whenever possible. He will also collect more official statistical data and if need be, conduct a literacy census of Atchalan. The trip and living expenses will be financed by the author. However, some of the tapes and field material may be typed up in the fall at Emory.

3. Fall Quarter, 1968, at Emory, the author hopes to write up his data in outline.

Results:

The project seeks to have a first draft of the monograph ready by January, 1969. It will then be submitted to various possible publishers.

Follow-Up Report:

A first draft for publication has been submitted to Holt, Rinehart and Winston.

ADAPTATION OF THE CLYMER-BARRETT PREREADING BATTERY TO CHILDREN FROM DISADVANTAGED BACKGROUNDS

Investigator: W. Paul Mortenson
Division of Educational Studies
Ph.D., University of Wisconsin, 1966

Amount of Grant: \$5,300

Purpose:

The purpose of this project is to investigate differences between labels for pictures presented in the Clymer-Barrett Prereading Battery Auditory Discrimination Subtests and the names disadvantaged children associate with these pictures.

Procedure:

The initial step will be to present pictures to disadvantaged and advantaged first grade children from the Atlanta Public Schools to see what labels they place on these stimuli. Then these responses will be compared with those stated in the Clymer-Barrett Prereading Battery Auditory Discrimination Subtests to isolate discrepancies. Subsequently, either the directions will be changed in order to rename the pictures, or other pictures, using those most often named by the disadvantaged group, will be substituted, or both procedures will be undertaken to adapt the test to the background experiences of the disadvantaged children.

Finally, the original prereading battery and the revised battery will be administered to other groups of disadvantaged and advantaged first grade children. The results of these administrations will be analyzed to see if significant differences in test results do in fact occur between the two tests and between the two groups of children.

Results:

The percentage of the number of subjects who labeled the picture correctly, either at once or eventually through repeated guesses, was computed. The results indicate that kindergarten children will often fail to label pictures correctly and thus failure has several factors, including sex, race and socio-economic status, with girls, high SEL and white on the high end of the scales.

Follow-Up Report:

Investigator moved to Iowa.

COMPREHENSION MEASURES FOR PRIMARY GRADE
CHILDREN: ORAL READING ERRORS

Investigator: Joanne R. Nurss
Division of Educational Studies
and Department of Psychology
Ph.D., Columbia University, 1966

Amount of Grant: \$2,550.11

Purpose:

The objective of this study was to investigate a measure of primary grade children's comprehension, namely, oral reading errors.

Procedure:

The subjects were 36 second grade children from a middle socio-economic area of a suburban Connecticut community. The tape recordings of primary grade children reading twelve one-sentence stories were coded for oral reading errors by three experienced reading teachers. These oral reading errors were then analyzed to assess the effects of varying levels of syntactic complexity on oral reading.

Results:

The results were analyzed by a series of analyses of variance. Sentences of high structural depth had significantly more total oral errors, other errors and vocabulary errors in context than did sentences of low structural depth. In the structural organization sentences, complex sentences had significantly more words supplied by the examiner and vocabulary errors in context, and compound sentences had more corrections.

Other analyses indicated that there was a high positive correlation between the vocabulary errors made in isolation and in context; that repetitions were more likely to be repetitions of a whole structural unit in the less complex sentences; and that uncorrected substitutions, omissions, and additions were more likely to make sense -- semantically and grammatically -- in sentences of less complex structure.

Satisfactory procedures were developed for coding the oral reading errors of this sample of primary grade children who had not been screened on vocabulary; and the results of the study indicate that oral reading errors may be used as

a measure of comprehension difficulty for subjects with varying knowledge of vocabulary items.

Follow-Up Report:

A relative research is being conducted under the Regional Project Research Program. Publication, "Oral Reading Errors and Comprehension," Reading Teacher, in press.

FREE RECALL LEARNING AS A FUNCTION OF
PRESENTATION METHOD AND INSTRUCTIONS TO RECALL

Investigator: William H. Saufley, Jr.
Department of Psychology
Ph.D., Northwestern University, 1965

Amount of Grant: \$925

Purpose:

The purpose of this research proposal is to request funds to support analyses of data, already gathered, which pertain to human memory. The analyses are designed to determine how organization in recall is affected by the experimental treatments used with college students.

Procedure:

Verbal recall learning was studied under three list presentation conditions and three different instructions for recall in a 3X3 factorial free recall learning experiment. The study-test method was used with words presented verbally and S recalled by writing as many words as he could remember. The three presentation methods were: serial (set), variable-first (spin), and random. Recall conditions were varied by instructions to recall: any order, any order but consistent, and same order.

Results:

The presentation methods did produce differences in the number of words recalled with set producing greater recall and random the least. Also, instructional conditions for recall produced reliable differences, with any order and any order-consistent conditions producing greater recall than same order. The interaction of these two variables was also significant.

Instructions to recall a list of words plays a role in determining the total number of words remembered when the words are presented either using the spin procedure or the random method. Learning under the set procedure was rapid and did not differentiate among recall conditions.

Follow-Up Report:

A publication is planned based on this research and a grant proposal to continue the research is highly probable.

DEVELOPMENT AND STANDARDIZATION OF AN INSTRUMENT
FOR ASSESSING VIDEO-TAPED DATA OF TEACHER
MANAGEMENT IN THE ELEMENTARY CLASSROOM

Investigators: David S. Steward
School of Theology
M.A., Yale Graduate School, 1964

Margaret S. Steward
Department of Psychology
Ph.D., Yale, 1965

Amount of Grant: \$4,900

Purpose:

The objective of this study is the development of an instrument for the observation of teacher management in the elementary classroom. It is anticipated that the instrument will make possible a series of studies dealing with the management techniques appropriate to children of different ages, the preparation of both student and experienced teachers to work in sub-cultures different from their own, and the supervision of student teachers in gaining effective management techniques.

Procedure:

The instrument is presently in experimental form. Before it can be given its final form, the following issues must be addressed: the attitude of teachers toward the experience of being video-taped; the usefulness to the teacher of the statement of the concepts in the instrument; the stability of teacher management behavior over time. These issues will be investigated by the use of interviews, video-taping and supervision seminars at Emory programs for experienced and student teachers. After the summer investigation has been completed, a final survey of the literature and critical response from selected professionals will permit the statement of the instrument in its final form.

The major task of standardization will follow. Care will be taken to establish representative samples on variables of teacher experience, social class of students and grade level.

Results:

Several trials and revisions of the instrument were made. Coding procedures were developed and modified to gain high

intercoder reliability. Data were then collected on 30 experienced teachers in the Atlanta schools. A 2X2 factorial design was used by grade and socio-economic level. Data analysis is incomplete at this time, but previous hypotheses involving teacher self-image were not confirmed. Many problems of interpretation were found to exist.

Follow-Up Report:

Three articles have been written and submitted; three colloquia and five workshops held. A major research proposal is being submitted.

LEVEL OF ASPIRATION PERFORMANCE AMONG
NEGRO AND WHITE ADOLESCENTS

Investigator: Bonnie Strickland
Department of Psychology
Ph.D., Ohio State University, 1962

Amount of Grant: \$1,850

Purpose:

The purpose of this study was to examine the relationship of level of aspiration of both Negro and white male and female adolescents to external locus of control. The study also considered these variables across lower and upper middle socio-economic levels.

Procedure:

Five Emory students were trained in the use of the level of aspiration board (LOA) developed by Rotter. These students administered group tests which yielded internal-external locus of control scores. These tests were administered to 155 randomly selected students. Local schools serving a lower socio-economic Negro neighborhood; a lower socio-economic predominantly white neighborhood; and a middle and upper middle class white neighborhood were used.

Results:

A consideration of the data collected thus far indicates that lower class adolescents do not appear to incorporate immediate performance into their generalized expectancy of success in the same way as do middle class adolescents. The data further indicate that expectancy for success is quite different in males and females across race and SEL. These findings are suggestive that modes of learning and responding to immediate past performance are variables which must be carefully considered by teachers and counselors working with lower SEL students.

Follow-Up Report:

Data analysis is continuing and publications are planned.



EXPLORATORY INVESTIGATION OF SOCIALIZATION
PATTERNS IN JACKSONIAN AMERICA, 1800-1850

Investigator: Charles E. Strickland
Division of Educational Studies
and Department of History
Ph.D., University of Wisconsin, 1963

Amount of Grant: \$3,377.58

Purpose:

The purpose of this project was to make an exploratory investigation of socialization practices in Jacksonian America (ca 1800-1850) in order to determine the quantity and depth of historical data available in extant personal documents, to develop procedures for the analysis of data, and to assess the dominant patterns of socialization encountered by the subjects of investigation during the period. An attempt will be made to develop procedures for classification and analysis of events with a view to developing a mode of assessing the origins and effects of socialization practices. The immediate outcomes of the project will be (1) an article for presentation at an historical meeting and (2) a project proposal to the U. S. Office of Education.

Procedure:

The procedure was to examine more than five hundred published and unpublished personal documents at major libraries in the United States that contain references to the socialization experiences of the author or of a person known intimately by the author. Particular attention was given to events that involve an interaction between the child (or youth) and other persons in the course of his coming-of-age.

Results:

The final report consists of an account of American family life and child-rearing in the nineteenth century as recorded by Amos Bronson Alcott in his manuscripts which contain observations on the behavior of his daughters and reflections on the significance of the early years of human life.

Follow-Up Report:

The investigator is currently on leave as a Research Fellow at the Charles Warren Center for Studies in American History, Harvard University. Publication, "A Transcendentalist Father: The Child-Rearing Practices of A. Bronson Alcott," to appear in Volume III of Perspectives in American History, 1969.

SOCIALIZATION IN JACKSONIAN AMERICA: THE CASE
OF ANNA BRONSON ALCOTT (PART TWO)

Investigator: Charles E. Strickland
Division of Educational Studies
and Department of History
Ph.D., University of Wisconsin, 1963

Amount of Grant: \$2,011

Purpose:

The proposed project is intended as part of a larger effort to determine the historical development of socialization patterns in American culture. The effort is to find out how Americans have reared and educated their children; why the patterns emerged as they did; and with what effect on the formation of individual personality, the development of national character and the transmission of culture.

Procedure:

The project is a continuation of earlier work by the principal investigator on child-rearing in Jacksonian America. The early nineteenth century was selected as being the earliest period at which one could hope to uncover documentation of sufficient scope and depth to yield a convincing portrait. After surveying a quantity of memoirs, diaries and letters, the investigator decided to concentrate on the child-rearing diaries kept by Amos Bronson Alcott during the eighteen-thirties and covering the first five years of Anna Alcott's life. It is now proposed to continue the investigation by following Anna's development from the age of five years until approximately the age of twenty-one. The sources include diaries kept by various members of the Alcott family and the voluminous correspondence which they exchanged among themselves.

Results:

The result of this research is a longitudinal case study of childhood experience in Jacksonian America which will be published by The John Harvard Library of Harvard University.

Follow-Up Report:

See preceding research report.

EFFECTS OF IRRELEVANT AUDITORY INPUT ON
LEARNING AND RETENTION OF VERBAL
MATERIALS IN COLLEGE STUDENTS

Investigator: Barbara S. Uehling
Department of Psychology
Ph.D., Northwestern University, 1958

Amount of Grant: \$550

Purpose:

The proposed research is concerned with the effects of the addition of nonmeaningful auditory input (white noise) to presentation of visually presented verbal materials on acquisition and retention of these materials by male and female college students.

Procedure:

The 100 subjects for this research will be obtained from undergraduate classes of Emory University and will be assigned in order of appearance to one of ten groups. All groups will learn a 15-item verbal list to a criterion of one perfect trial. Half of the groups will be tested immediately for retention of the learned list. The remaining five groups will be tested at the same time of day 24 hours later for retention of the list. All learning and retention sessions will be conducted individually. The five groups within each retention interval, immediate or 24 hour, will differ in which stage of acquisition auditory input is added.

The serial list to be learned will consist of 15 items selected on the basis of their "neutrality" as judged by prior ratings of 75 items made by introductory psychology students. The rated words occurred equally frequently in the English language according to the Thorndike-Lorge word count.

Presentation of the words will be made via a memory drum at a three second rate with a three second intertrial interval. The burst of WN will be coincident with presentation of the stimulus item and will last for .5 second. It will be 80 db. in intensity which is loud but not noxious. The five retention trials will be presented in the same manner as acquisition trials but no WN will be used.

Results:

Tentative conclusions indicate that the effect of irrelevant white noise during acquisition of serial list of meaningful words interferes with acquisition in men but facilitates acquisition in women. This same effect appears to hold if irrelevant white noise appears only in the first third of the acquisition task.

Follow-Up Report:

Research is continuing.

READING RESEARCH PROGRAM

Investigator: Norman P. Uhl
Division of Educational Studies
and Testing Service

Amount of Grant: \$700

Purpose:

To identify the variables which are related to reading success.

Procedure:

Data was collected on about 60 different variables using second graders from low and high socio-economic levels. Both good and poor readers were represented in this sample of over 200 children. What may be important predictors of reading success were selected from these results, results obtained from some additional studies with younger children, and results which Boyd McCandless gathered on preschool children. An instrument or combination of instruments were used to obtain a profile for each child on these selected variables. A content analysis of the reading curricula in terms of these same variables was made so that each reading curriculum had a profile. The hypothesis to be tested was that placing a child in a reading curriculum which emphasizes his strengths and minimizes his weaknesses will provide a greater success than any other curricula.

Results:

This research was part of a larger research project jointly funded with the Education Improvement Project, a Ford Foundation sponsored project in Atlanta. Four graduate students involved in this project used the data thus gathered to write their Masters of Education projects.

Follow-Up Report:

Subsequent funding of \$16,000 from the Education Improvement Project of Atlanta was received to continue research.

APPENDICES

APPENDIX A

Emory University
Atlanta, Georgia
December 2, 1966

PROGRAM FOR INCREASING EDUCATIONAL RESEARCH ACTIVITY AT EMORY UNIVERSITY

GUIDELINES FOR PREPARING RESEARCH PROPOSALS

Funds have been made available through a grant from the U. S. Office of Education to support a variety of research and development activities related to education at Emory. An original grant of one year (July 1, 1966, to June 30, 1967) was awarded with renewal possibilities for two additional years.

The major purpose to be accomplished through these funds is the stimulation of individual and group research activity on problems related to education. It is hoped that by the end of the three year period that sufficient research sophistication will have been gained by the faculty to enable a self-perpetuating program of research to continue. Thus funds for continuing research will be obtained through individual research proposals generated during the initial three year period.

While all faculty members are encouraged to submit proposals, particular consideration will be given to those who are just beginning their research efforts. This emphasis is an effort to broaden the base of the faculty actively engaged in research and encourage those just beginning research who might otherwise not find time or funds readily to support their activities.

Kinds of Research Supported

By the very nature of the grant, the major portion of funds are allotted for personnel. Included under this category is released time for faculty members and funds for research assistants and clerical help. Faculty members may use their time and assistance in a variety of ways including: 1) the preparation of research proposals for more extensive research projects; 2) small pilot projects to gather data or information necessary for initiating other research; 3) library or literature search for background or supportive references; 4) preparation of manuscripts based on previously

unreported data; 5) completing analysis of previously gathered data; and 6) developing instruments or techniques essential to further research. This listing is not intended to be exhaustive but merely reflects the probable priority of support under the purpose of the grant. Other activities proposed will be reviewed and considered in light of the terms and purposes of the grant.

The support of these research activities is not limited to faculty members in the Division of Teacher Education. Other members of the University community are invited to submit proposals if their research is clearly related to educational problems.

General Format for Proposals

All proposals should be submitted to:

Eugene C. Lee
Coordinator of Educational Research
Division of Teacher Education
202 Fishburne Building

Ten copies of the proposal are requested. The proposal will ordinarily run from seven to ten pages in length. Some of the following categories may not be applicable to each proposal; appropriate modifications may be made as necessary.

- I. Title Page - include project title, principal investigator, duration of project; requested support (funds), signature of department head. (See sample attached.)
- II. Abstract - state briefly (one page) the objectives of the research and the procedures to be used.
- III. Problem - include the nature of the problem, related literature, hypotheses to be investigated.
- IV. Objectives - objectives of study or activity.
- V. Procedure - describe procedures to be used or activities to be undertaken.
- VI. Project Outcomes - hoped for end result (e.g., a proposal to U.S.O.E., a manuscript, etc.).
- VII. Personnel - your own background, particularly as related to the proposed research and requests for research assistants, consultants, etc.

VIII. Time Schedule - time table of activities for the project.

IX. Budget - amount of support requested in each category.

Directions for Preparing Budget

1. Although the major portion of funds granted are in personnel, small sums in other categories are available. These other categories include:

Consultants - at a rate not to exceed \$50 per day.
Emory University personnel may not be used as consultants.

Travel - there are no provisions for per diem.
Travel reimbursement is at lowest air fare rate.

Supplies - supplies may include such items as tests, materials, etc. All supplies should be requisitioned through the R&D Office, 202 Fishburne.

Since the funds available in these categories are relatively small, it would be advisable to consult with the R&D Office as to the appropriate amount of funds to ask for in the proposal.

2. Personnel - computations involving faculty salary and benefits are quite complex and depend on various factors such as leave quarters, etc. Faculty members in the Division of Teacher Education should check with the R&D Office and the Division Director regarding these computations. Faculty outside the Division should spell out in detail the basis for computing faculty compensation. For research assistants and clerical help, standard University rates apply.

Policies Governing Research Awards

While it is desirable to conduct the administration of funds for the individual research projects with as high a degree of flexibility as possible, there are certain procedures which must be followed to insure accurate accounting and faithful stewardship of government funds.

Please read these carefully before launching your project and it will save us all some time and headaches.

1. Personnel. For staff personnel requested in your budget, personnel action forms must be filled out and submitted through the R&D Office. For faculty released time,

please check with the R&D Office about how this is to be handled.

2. Supplies and Equipment. Please order all supplies and equipment through the R&D Office. Regular requisition and purchase order forms are available.

3. Reporting. Written reports of the results of your research activity will be required at the end of each quarter and at the termination of the project. The form of these reports may vary depending upon the nature of your project but should include such materials as you deem appropriate to be included in a quarterly report to Washington.

As a general rule, when in doubt, check with the R&D Office before the fact.

SAMPLE TITLE PAGE

Project Title:

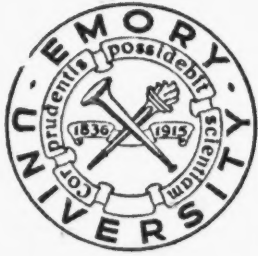
Principal Investigator:

Duration of Project: From _____ to _____

Requested Support: \$ _____

Authorized by: _____
(Department Head or Chairman)

APPENDIX B



THE EMORY UNIVERSITY

Campus

Report

TENA BLEDSOE, Editor

Vol. 19, No. 1

September 19, 1966

'Seed Money' In Teacher Education To Stimulate Research Activity

A grant of "seed money" from the U.S. Office of Education may help Emory's Division of Teacher Education break the grant money "monopoly."

The Office of Education has awarded Emory a one year grant of \$50,000 to help stimulate and strengthen educational research activity.

This federal program is designed to aid small departments of education in building a nucleus of ongoing research projects. Grants are renewable for two additional years. Presumably by the end of the three-year period these departments should be boosted to a position where they can attract further research funds competitively from either governmental or private sources.

Back of this national effort lies the recognition that in recent years a relatively small number of colleges and universities across the country has been capturing much of the grant money available for research.

As an institution becomes noted for research in a certain field, more

funds become available, in a self-perpetuating cycle.

Emory's attempt to increase educational research activity reflects new emphasis on research within the Division of Teacher Education. The division is steadily growing—it now numbers 26 members—and hopes to make its research activity level comparable to other fields within the university complex.

In the past, emphasis on research in teacher education has been meager and has largely consisted of individuals pursuing interests without grant support.

Faculty members, hard pressed with classes, meetings, counseling students and teacher service activities, have been unable to find sufficiently large blocks of time to devote to research.

Coordinator of the division's new program to increase research activity, Dr. Eugene C. Lee, associate professor of teacher education, points out three advantages of the program for busy faculty members: it will provide them with released time for research, clerical and research assistants and assistance in preparing and submitting grant proposals.

The typical length of released time gained by faculty members selected to participate in the program will be half-time for two quarters.

Dr. Lee will study granting agencies and their differing requirements and advise faculty

members on the preparation of proposals.

Grant rejections at times stem from improper preparation of proposals or from failure to submit the proposals to the most suitable agency. As such, teacher education's grant clearinghouse appears to be the first on campus.

The range of research available for support is extremely broad. Studies may include fields such as the philosophy and history of education as well as the currently more fashionable fields of learning and behavioral studies.

Faculty members from other departments on campus are also eligible for these funds if their research interests are compatible with those of teacher education.